Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original): In a wireless communication system including an automatic gain controller (AGC), a method of estimating and controlling initial time slot gain in the AGC, the method comprising:

(a) inputting an initial input signal in front of the gain-adjustable amplifier for a j'th timeslot in a k'th frame;

(b) applying a control word $w_l[k-1,j]$ to the gain-adjustable amplifier at the end of the j'th timeslot in the (k-1)'th frame; and

(c) estimating the initial input power, based on the power measurement of the time slot j in the previous frame k-1, by:

(i) removing the power of code signals that will disappear from the incoming time slot; and

(ii) adding the power of new code signals that will arrive in the incoming time slot.

2. (original): The method of claim 1 wherein the AGC is located in a base station.

3. (currently amended): In a wireless communication system that does not have access to specific code-related information, the system including an automatic gain controller (AGC) having at least one gain-adjustable amplifier in communication with an analog-to-digital converter (ADC), a method for controlling the gain of the gain-adjustable amplifier, the method comprising, at the end of a timeslot j in a k-1 frame, applying a control word $w_0[k,j]$ to the gain-adjustable

amplifier wherein $w_0[k,j] = w_l[k-1,j] + \frac{10}{b}\log\left(\frac{P_{ref}}{\overline{P}_{est}[k-1,j]}\right)$, P_{ref} is the desired output power of the ADC, $\overline{P}_{est}[k-1,j]$ is the average output power of the ADC, b is a characteristic parameter of the gain-adjustable amplifier, and $w_l[k-1,j]$ is the control word applied to the gain-adjustable amplifier at the end of the j'th timeslot in the (k-1)'th frame ~~G_{ADC} is the power gain of the ADC, $P_{in}^0[k,j]$ is the initial input signal power in front of the gain-adjustable amplifier for the j'th timeslot in the k'th frame, $w_0[k,j]$ is the initial control word for the j'th timeslot in the k'th frame and 10^{bw+a} is the model of the gain-adjustable amplifier~~.

4. (original): The method of claim 3 wherein the AGC is located in a base station.

5. (original): The method of claim 3 wherein the specific code-related information indicates which existing code will no longer appear in the next timeslot.

6. (original): The method of claim 3 wherein the specific code-related information includes the actual values of signal factors for a newly arriving code.

7. (original): The method of claim 3 wherein the specific code-related information includes spreading factors for a newly arriving code.

8. (original): In a wireless communication system that does not have access to specific code-related information, the system including an automatic gain controller (AGC) having at least one gain-adjustable amplifier coupled to an analog-to-digital converter (ADC), a method for controlling the gain of the gain-adjustable

amplifier, the method comprising estimating the initial input power to the gain-adjustable amplifier, based on the power measurement of a time slot j in a previous frame k-1 by (1) removing the power of signals that will disappear from the incoming time slot and (2) adding the power of the new signals that will arrive in the incoming time slot.

9. (original): The method of claim 8 wherein the AGC is located in a base station.

10. (original): An automatic gain controller (AGC) located in a wireless communication system, the AGC for estimating and controlling initial time slot gain in the AGC, the AGC comprising:

(a) at least one gain-adjustable amplifier;

(b) an analog-to-digital converter (ADC) coupled to the gain-adjustable amplifier;

(c) means for inputting an initial input signal in front of the gain-adjustable amplifier for a j'th timeslot in a k'th frame;

(d) means for applying a control word $w_0[k, j]$ to the gain-adjustable amplifier; and

(e) means for estimating the initial input power, based on the power measurement of the time slot j in the previous frame k-1, by:

(i) removing the power of code signals that will disappear from the incoming time slot; and

(ii) adding the power of new code signals that will arrive in the incoming time slot.

11. (original): The AGC of claim 10 wherein the means for applying the control word $w_0[k, j]$ comprises:

(d1) an initial value generator;

(d2) a slot clock for outputting time slot j to the initial value generator;

(d3) a frame clock for outputting frame k to the initial value generator; and

(d4) an accumulator coupled between the initial value generator and the gain-adjustable amplifier, the accumulator for receiving the control word $w_0[k,j]$ from the initial value generator and applying the control word $w_0[k,j]$ to the gain-adjustable amplifier.

12. (original): The AGC of claim 11 wherein the initial value generator receives system and measurement information.

13. (original): The AGC of claim 10 wherein the AGC is located in a base station.